

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 63-177434

(43)Date of publication of application : 21.07.1988

(51)Int.Cl. H01L 21/60

(21)Application number : 62-008004 (71)Applicant : HITACHI LTD

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(54) ELECTRONIC COMPONENT CONNECTING STRUCTURE AND MANUFACTURE THEREOF

(57)Abstract:

PURPOSE: To obtain a connecting structure which can be freely displaced vertically within a certain limit without reducing the horizontal expansion difference absorbing function of a flip-chip and a substrate by simultaneously forming conductive leaf springs having heights smaller than minimum lateral size on an insulating sheet, and employing them as part of a flip-chip bonding.

CONSTITUTION: Conductive leaf springs 1 having heights formed simultaneously on an insulating sheet 2 are inserted as parts of a connecting structure in a flip-chip bonding for electrically connecting an electronic component 3 having a plurality of connecting points 32 to a substrate 4. A metal plate 1' bonded to the sheet 2 in which holes are formed at the positions corresponding to the points 32 is photoetched, and independent conductive plate springs 1 of the number corresponding to the points 32 are simultaneously so formed that one ends remain bonded to the sheet 2 and the other ends are disposed at the holes of the sheet 2. For example, the springs 1 are spirally formed, the spiral centers of the springs 1 are connected to chip electrodes 32, and the other ends are connected by solders 31, 41 to substrate electrodes 42.

